

ABSTRACT OF THE DISCLOSURE

Molds made from a porous metal material allow for superior injection and compression molding of golf ball portions, such as cores, intermediate layers and covers. Use of the porous material in the sections contacting molding material, such as mold sections forming cavities, pins, or runners, allows for production of superior ball portions, with reduced formation of pin marks, knit lines, and other imperfections leading to degradation of the properties of the resulting portions. All or part of the mold can be made from the porous metal. Particular mold apparatus incorporate vacuum and/or compression devices to improve venting and release of the ball portions from the mold. Also, methods for preparing a layer for a golf ball incorporates using a mold made from a porous material and incorporating use of vacuum or pressurizing devices.